

DEPARTMENT OF TRANSPORTATION**DIVISION OF ENGINEERING SERVICES**

Office of Structural Materials

Quality Assurance and Source Inspection



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Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 82.28**WELDING INSPECTION REPORT****Resident Engineer:** Siegenthaler, Peter**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-017430**Date Inspected:** 09-Oct-2010**Project Name:** SAS Superstructure**OSM Arrival Time:** 700**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1530**Contractor:** Westmont Industries**Location:** Santa Fe Springs, CA.**CWI Name:** R. Rodriguez, R. Dominguez**CWI Present:** Yes No**Inspected CWI report:** Yes No N/A**Rod Oven in Use:** Yes No N/A**Electrode to specification:** Yes No N/A**Weld Procedures Followed:** Yes No N/A**Qualified Welders:** Yes No N/A**Verified Joint Fit-up:** Yes No N/A**Approved Drawings:** Yes No N/A**Approved WPS:** Yes No N/A**Delayed / Cancelled:** Yes No N/A**Bridge No:** 34-0006**Component:** Travelers**Summary of Items Observed:**

The Quality Assurance Inspector Sean Vance arrived on site at Westmont Industries (WMI) in Santa Fe Springs, CA, to randomly observe the in process welding of the Travelers and the WMI Quality Control (QC) Inspectors in process and completed visual and nondestructive testing. Upon the arrival of the QA Inspector, the following observations were made:

Traveler Test Rack

The QA Inspector observed a WMI production fitter, performing grinding and fabrication layout activities for the Traveler Test Rack. The QA Inspector observed that the piece mark was identified as Vertical Post Assembly 39-C13, Vertical Post Assembly, identified as 38-B13 and that the grinding and layout, was being performed on the top and bottom plates, to vertical post Tube Steel (TS) material. The QA Inspector observed that no welding was performed on the above mentioned assemblies, on this date.

Trolley Test Stand

On this date, the QA Inspector observed Westmont Industries (WMI), production welder Jose Rodriguez (WID # 3031) continuing to perform Flux Core Arc Welding (FCAW) activities, for the Trolley Test Stand. The QA Inspector observed that Mr. Rodriguez was performing the FCAW in the 2F (horizontal) position and the fit up appeared to be a T joint, with an 8 mm fillet weld reinforcement, per the approved shop drawings. The QA Inspector observed that the FCAW was being performed on the piece mark identified as Rail X flange to web plate, per the shop drawing # WMI-TTC-4. The QA Inspector then utilized a Bridge Cam Gauge to measure random sections of completed weld and the fillet weld reinforcement appeared to be 10 mm.

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See attached picture below.

SAS-EB Traveler

Elevated Truss Section

On this date, the QA Inspector observed Westmont Industries (WMI) production welders Daniel Grayum (WID # 3049) and Juan Jimenez (WID # 3059) continuing to perform Flux Core Arc Welding (FCAW) activities for the E2/E3-EB Traveler. The QA Inspector observed that the FCAW in various positions and the FCAW was being performed on the previously tack welded frame assemblies identified as A214, A216, A235 and B235. The QA Inspector observed that the welds were identified as fillet and flare groove and these frame assemblies are designated as assemblies for the fabrication of the Elevated Truss Section of the Traveler, per the approved Shop Drawings.

On this date, the QA Inspector observed Smith Emery QC Inspector, Ruben Dominguez, continuing to perform Visual Testing (VT) on previously completed Fillet and Flare Groove welds, for the Elevated Truss Section Assembly. The QA Inspector observed QC Inspector Dominguez continuing to mark up multiple areas of the completed welds, utilizing a soapstone marking device. After marking up the areas, Mr. Dominguez explained that multiple areas of weld undercut, under fill and weld spatter were present. QC Inspector Dominguez explained that these areas, which were marked, were unacceptable per AWS D1.1 2002. The QA Inspector later observed production welder Daniel Grayum, perform grinding activities on the above mentioned areas, utilizing a mechanical grinder. The QA Inspector observed that Mr. Grayum randomly performed these activities, throughout the shift.

Frame Assemblies

On this date, the QA Inspector observed Westmont Industries (WMI), production welder Eutimo Lopez (WID # 3035), continuing to perform Flux Core Arc Welding (FCAW) activities for the E2/E3-EB Traveler frames. The QA Inspector observed Mr. Lopez performing the FCAW on previously fit and tack welded Tube Steel (TS) and plate material, for the Frame Assembly identified as B240, per the shop drawings. The QA Inspector randomly observed that Mr. Lopez continued the FCAW throughout the end of the shift. The QA Inspector observed that Smith-Emery QC Inspector Ruben Dominguez was present, during the above mentioned welding and tacking activities and QC Inspector Dominguez explained that approved Welding Procedure Specifications (WPS's) were being utilized. The QA Inspector randomly observed that the applicable WPS's and copies of the shop drawings, were located near each work station, where the above mentioned FCAW and fitting activities were being performed. QC Inspector Dominguez explained that the in-process welding parameters were randomly verified including voltage, amperage, pre-heat and travel speed and explained that the parameters appeared to be in compliance to the applicable WPS and the QA Inspector concurred with Mr. Dominguez.

On this date, the QA Inspector observed Westmont Industries (WMI) production personnel Mr. Tim Hartnett, cutting material which will be utilized, for the Traveler Frame Assemblies. The QA Inspector observed that Mr. Hartnett was continuing to utilize a Marvel® 15 A series horizontal band saw, to perform the cutting operations and observed that the material being cut, is identified as 6" x 4" x .1875" (203 mm x 102 mm x 5 mm) rectangular Tube Steel (TS). The QA Inspector spoke with Mr. Hartnett and he explained that WMI shop supervisor, Mr. George Grayum, had provided a list of TS material, with specific dimensions, per the shop drawing and bill of materials. Mr. Hartnett further explained that he was cutting the material to these specific lengths and marking the material with a white paint stick marker, to identify the individual cut pieces of material. After the material was cut

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and marked, the QA Inspector observed Mr. Hartnett utilize the overhead bay crane, chain and hook to lift and place the material into neatly stacked piles, nearby the cutting area. The QA Inspector noted that the Mill Test Reports (MTR's) had been previously provided and the QA Inspector had previously written "OK to Cut" on the material.



Summary of Conversations:

On this date, the QA Inspector had general conversation with WMI QCM Rick Rodriguez and WMI Production Supervisor George Grayum, regarding the AWS D1.1 2002 Visual and SSPC-SP-10 Testing Requirements, prior to blast cleaning and paint application.

The QA Inspector was later informed by Mr. Rodriguez that he had created a welding Visual Testing Criteria and SSPC-SP-10 checklist, per these requirements, to post at each welders station, so that there is a clear understanding of the Testing requirements, after welds are complete.

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Nina Choy (510) 385-5910, who represents the Office of Structural Materials for your project.

Inspected By:	Vance, Sean	Quality Assurance Inspector
Reviewed By:	Edmondson, Fred	QA Reviewer
